

Earthquake

Definition

- “An earthquake is a sudden movement and vibrations induced in the earth crust due to abrupt dislocation and disturbances within its interior.”

Terminology

- **Focus**- it is the point within the earth at which the earthquake originates.
- **Epicenter** – This is the point on the earth surface which is vertically above the focus.
- **Isoseismal lines**- These are imaginary lines joining points on the earth's surface which have suffered the earthquake of same intensity.
- **Focal depth** / Depth of focus- The vertical distance between the focus and the epicenter of the earthquake is called as focal depth.

Recording of an earthquake

- When an earthquake occurs a part of the released energy is manifested as seismic waves. These waves can be recorded by a sensitive instrument called as seismograph.

Intensity

- Intensity of an earthquake is the qualitative estimate of the strength of an earthquake.

It is measured by the effects of an earthquake on man and the destruction and the changes produced .

Modified Mercalli Scale of intensities-

Magnitude

It illustrates the strength of an earthquake numerically. It is the quantity of the energy liberated during the major shock.

Richter scale of magnitudes-

precautions

A. Before an earthquake:

- Follow and advocate local safe building codes for earthquake resistant construction.
- Follow and advocate upgrading poorly built structures.
- Make plan and preparation for emergency relief.
- Identify the medical centres, fire fighting stations, police posts and organise relief society of your area.
- Know the electric and water shut off locations in your house.
- Heavy objects, glasses, cutlery should be kept in lower shelves.

B. During an earthquake:

- **Keep calm and reassure others.**
- **During the event, the safest place is an open space, away from buildings.**
- **If you are indoors, take cover under a desk, table, bed or doorways and against inside walls and staircase. Stay away from glass doors, glass panes, windows or outside doors. Do not rush to go out of the building, to avoid stampede.**
- **If you are outside, move away from buildings and utility wires.**
- **Once in the open, stay there till the vibrations stops.**
- **If you are in a moving vehicle, stop as quickly as possible and stay in the vehicle.**
- **Free all pets and domestic animals so that they can run outside.**
- **Do not use candles, matches or other open flames. Put out all fires.**

C. After an earthquake:

- **Keep stock of drinking water, foodstuff and first-aid equipment in accessible place.**
- **Do not spread and believe rumours.**
- **Turn on your transistor or television to get the latest information/bulletins and aftershock warnings. WWW.USGS.GOV**
- **Provide help to others and develop confidence.**
- **Attend the injured persons and give them aid, whatever is possible and also inform hospital.**
- **Be prepared for aftershocks as these may strike.**
- **Close the valve of kitchen gas stove, if it is on. If it is closed, do not open. Do not use open flames.**
- **Do not operate electric switches or appliances, if gas leaks are suspected.**
- **Check water pipes, electric lines and fittings. If damaged, shut off the main valves. Do not touch live wires of electricity**